

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A18SW Revision 3 Fairchild Aircraft, Inc. SA227-CC SA227-DC (C-26B) December 1, 2000

TYPE CERTIFICATE DATA SHEET A18SW

Type Certificate Holder: Fairchild Aircraft, Inc.
San Antonio, Texas 78279-0490

I - Model SA227-CC, 21 PCLM, Commuter Category, FAR 23, Approved June 25, 1990. * NOTE 10

Engines	Two Garrett (Airesearch) TPE331-11U-612G				
Fuel	Aviation turbine fuels	Garrett Specification			
	Type A	EMS53111			
	Type A-1	EMS53112			
	Class A-JP4 and	EMS53113			
	Class B-Type B				
	Type JP-5	EMS53116			
	Type JP-8	EMS53112			
	(Fuel shall conform to the specification as listed or to subsequent revisions thereof). (See Note 3)				
Oil	MIL-L-23699B conforming to Garrett Engine Division Specification EMS53110 Type II.				
Engine Limits	Static Sea Level Ratings.				
		Shaft Horse Power (S.H.P.)	Gas Gen. Speed (R.P.M.)	Prop Shaft Speed (R.P.M.)	Exhaust Gas Temp. (EGT) (Single Red Line) (°C)
	Take-off (5-min) Dry	1,000	41730*	1591*	650
	Take-off (5-min) Wet	1,100	41730*	1591*	650
	Max Continuous-Dry Starting Limit	1,000	41730*	1591*	650
	(1-sec)	-	-	-	770
	*(See Note 4)				
Oil Temps	Minus 40°C to 110°C (normal operations) Minus 40°C to 127°C (ground operations only)				

Page No.	1	2	3	4	5	6
Rev. No.	3	2	2	3	2	2

I - Model SA227-CC, 21 PCLM, Commuter Category, FAR 23, Approved June 25, 1990. * NOTE 10 (Cont'd)

Propeller and	Number	2	
Propeller limits	Make	McCauley	
	Model	4HFR34C652()/()-L106LA-0	
	Diameter	106 inches	
	Pitch At	30 in. station	
			McCauley Propeller Assembly Number
			D-5928 D-6933
	Feathered	88.9° ± 0.5°	88.5° ± 0.5°
	Flight Idle	15.0° ± 0.2°	15.0° ± 0.2°
	Start Locks	9.0° ± 0.5°	6.0° ± 0.5°
	Full Reverse	-5.0° ± 0.5°	-5.0° ± 0.5°

Airspeed Limits	Altitude	Speed
	(ft.)	(Knots CAS)
	Maximum	17,800 248
	Operating	18,000 247
	Speed	20,000 237
		23,000 223
		25,000 214
	Maneuvering	
	@ 16,000#	all 183
	Flaps Full Ext.	166
	1/2 Ext.	180
	1/4 Ext.	215
	Ldg Gear Ext.	176
	Ldg Gear Oper.	176

C.G. Range 262.8 (16.41% MAC) to 277.0 (36.0% MAC) at 16,500 lbs.
(Inches Aft of 257.0 (8.40% MAC) to 277.0 (36.0% MAC) at 11,000 lbs. and below.
Datum) Straight line variation between points given.

Note: Gear Retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear down envelope.

Empty Weight None
C.G. Range

Maximum Weight (lbs.)	Ramp	16,600
(See Note 6)	Take-off	16,500
	Landing	15,675
	Max. Zero Fuel	14,500

Maximum Operating 25,000 feet.
Altitude

Minimum Crew One pilot except as otherwise required by the Airplane Flight Manual (See Note 9).

No. Seats Maximum 21 (crew at + 111.0). (Maximum of 19 passengers). See AFM for loading instructions for crew and passenger loading.

Maximum Baggage
and/or Equipment

Rear Compartment: 850 lbs. (+473.4)

Nose Compartment: 800 lbs. (+46.7)

Local loading on cargo and passenger compartment floor: 150 lbs./sq. ft.

I - Model SA227-CC, 21 PCLM, Commuter Category, FAR 23, Approved June 25, 1990. * NOTE 10 (Cont'd)

Fuel Capacity	652 gal. total (324 gal. usable in each of 2 wing tanks). See Note 1 for data on unusable fuel.		
Oil Capacity	14.1 qt. total (3.8 qt. usable in each engine oil tank). See Note 1 for data on unusable oil.		
Control Surface	Wings Flaps		36° ± 1° down
	Main Surface		
	Aileron	18.5° ± 1° up	21.5 ± 1° down
	Elevator	30° ± 1° up	15° ± 1° down
	Rudder	25° ± 1° right	25° ± 1° left
	Stabilizer (mechanical stops):		
		2.40° ± .20° L.E. up	7.80° ± 0.20° L.E. down
	(electrical stops):		
		0.2° ± .05° before mechanical stops	
	Tabs (Main surface in Neutral)		
Aileron	20° + 2°, -1° up	20° + 2°, -1° down	
Rudder	25° ± 1.5° right	25° ± 1.5° left	
Serial Nos.	CC-790 and up. (See Note 8)		
Datum	Located 274.1 inches forward of wing main (forward) spar centerline.		
Leveling Means	Lateral:	Nose baggage compartment door sill.	
	Longitudinal:	Nose baggage compartment floor.	
Certification Basis	FAR Part 23 through Amendment 23-34 plus Amendment 23-39; equivalent safety finding per FAA letter dated September 20, 1990; FAR Part 36, SFAR 27 through Amendment 5 (See Note 6). Approved for flight into known icing in accordance with FAR 23.1419.		
Production Basis:	Production Certificate No. 6SW.		
Equipment	The basic required equipment, as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the aircraft for certification. Fairchild Drawing No. 27-10044 "Equipment List, Model SA227-CC" listing of all additional required equipment as well as optional installations approved by the FAA. (See Note 9)		

II. Model SA227-DC (C-26B), 21 PCLM, Commuter Category, FAR 23, Approved September 29, 1990 (See Note 7 and 11).

Engines	Two Garrett (Airesearch) TPE331-12UA-701G or TPE331-12UAR-701G or TPE331-12UHR-701G.	
Fuel	Aviation turbine fuels	Garrett Specification
	Type A	EMS53111
	Type A-1	EMS53112
	Class A-JP4 and	EMS53113
	Class B-Type B	
	Type JP-5	EMS53116
Type JP-8	EMS53112	

(Fuel shall conform to the specification as listed or to subsequent revisions thereof).
(See Note 3).

Oil

MIL-L-23699B conforming to Garrett Engine Division Specification EMS531100
Type II.

II. Model SA227-DC (C-26B), 21 PCLM, Commuter Category, FAR 23, Approved September 29, 1990 (See Note 7 and 11).(Cont'd)

Engine Limits	Static Sea Level Ratings.			
	Shaft Horse Power (S.H.P.)	Gas Gen. Speed (R.P.M.)	Prop Shaft Speed (R.P.M.)	Exhaust Gas Temp. (EGT) (Single Red Line) (°C)
	Take-off (5-min) Dry	1,100	41730*	1591*
	Take-off (5-min) Wet	1,100	41730*	1591*
	Max Continuous-Dry Starting Limit	1,000	41730*	1591*
	(1-sec)	-	-	-
				770
	*(See Note 4)			
Oil Temps	Minus 40°C to 110°C (normal operations) Minus 40°C to 127°C (ground operations only)			
Propeller and Propeller limits	Number	2		2
	Make	McCauley		McCauley
	Model	4HFR34C663()/()-L106KA-0		4HFR34C652()/()-L106LA-0
	Diameter	106 inches		106 inches
	Pitch At	30 in. station		30 in. station
			McCauley Propeller Assembly Number	
			D-5928	D-6933
				D-7274
	Feathered	88.9° ± 0.5°	88.5° ± 0.5°	88° ± 0.2°
	Flight Idle	15.0° ± 0.2°	15.0° ± 0.2°	16.0° ± 1.0°
	Start Locks	9.0° ± 0.5°	6.0° ± 0.5°	6.0° ± 0.2°
	Full Reverse	-5.0° ± 0.5°	-5.0° ± 0.5°	-4.0° ± 0.2°
Airspeed Limits	Altitude (ft.)	Speed (Knots CAS)		
	Maximum	17,800	248	
	Operating	18,000	247	
	Speed	20,000	237	
		23,000	223	
		25,000	214	
	Maneuvering @ 16,000#	all	183	
	Flaps Full Ext.		166	
	1/2 Ext.		180	
	1/4 Ext.		215	
	Ldg Gear Ext.		176	
	Ldg Gear Oper.		176	
C.G. Range	262.8 (16.41% MAC) to 277.0 (36.0% MAC) at 16,500			
Gear Down	257.0 (8.40% MAC) to 277.0 (36.0% MAC) at 11,000 lbs. and below.			

(Inches Aft of
Datum)

Straight line variation between points given.

Note: Gear Retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear down envelope.

II. Model SA227-DC (C-26B), 21 PCLM, Commuter Category, FAR 23, Approved September 29, 1990 (See Note 7 and 11).(Cont'd)

Empty Weight	None		
C.G. Range			
Maximum Weight (lbs.) (See Note 6)	Ramp	16,600	
	Take-off	16,500	
	Landing	15,675	
	Max. Zero Fuel	14,500	
Maximum Oper. Altitude	25,000 feet.		
Minimum Crew	One pilot except as otherwise required by the Airplane Flight Manual (See Note 9.)		
No. Seats	Maximum 21 (crew at + 111.0). (Maximum of 19 passengers). See AFM for loading instructions for crew and passenger loading.		
Maximum Baggage and/or Equipment	Rear Compartment: 850 lbs. (+473.4) Nose Compartment: 800 lbs. (+46.7) Local loading on cargo and passenger compartment floor: 150 lbs./sq. ft.		
Fuel Capacity	652 gal. total (324 gal. usable in each of 2 wing tanks. See Note 1 for data on unusable fuel.		
Oil Capacity	14.1 qt. total (3.8 qt. usable in each engine oil tank). See Note 1 for data on unusable oil.		
Control Surface	Wings Flaps	36° ± 1° down	
	Main Surface		
	Aileron	18.5° ± 1° up	21.5 ± 1° down
	Elevator	30° ± 1° up	15° ± 1° down
	Rudder	25° ± 1° right	25° ± 1° left
	Stabilizer (mechanical stops):		
		2.40° ± .20° L.E. up	7.80° ± .20° L.E. down
	(electrical stops):	0.2° ± .05° before mechanical stops	
	Tabs (Main surface in Neutral)		
	Aileron	20° + 2°, -1° up;	20° + 2°,-1° down
	Rudder	25° ± 1.5° right;	25° ± 1.5° left
Serial Nos.	DC-784 and up. (See Notes 7 and 8.)		
Datum	Located 274.1 inches forward of wing main (forward) spar centerline.		
Leveling Means	Lateral:	Nose baggage compartment door sill.	
	Longitudinal:	Nose baggage compartment floor.	
Certification Basis:	FAR Part 23 through Amendment 23-34 plus Amendment 23-39; equivalent safety finding per FAA letter dated September 20, 1990; FAR Part 36, SFAR 27 through Amendment 5 (See Note 6). Approved for flight into known icing in accordance with FAR 23.1419.		

Production Basis:

Production Certificate No. 6SW.

initial release plus EOS A-1 and A-2.

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